population consisted of older people (≥65 years) with polypharmacy (≥5 drugs) and the study was conducted in 178 community pharmacies in Spain. A total of 1,403 patients were enrolled, 688 in the intervention group (IG) and 715 in the control group (CG). The analysis adopted the perspective of the National Health Service (NHS). In order to analyze the uncertainty of ICER results, we performed a non-parametric bootstrapping with 5,000 replications. **RESULTS:** Both groups reduced the average number of prescribed medications, although this reduction was greater in the IG (0.28 drugs; p<0.001) than in the CG (0.07 drugs; p=0.063). Patients in the IG showed an improvement in their quality of life by 0.0528 in the utility score (p<0.001). By contrast, patients in the CG showed no differences in their quality of life by 0.0022 in the utility score (p=0.815). We obtained an ICER of €8,542/QALY and €6,777/QALY for the first and second scenario respectively, and a MRF as dominant strategy for the third, fourth and fifth scenario. For a willingness to pay of €30,000/QALY, the probability of the MRF being cost-effective, compared to usual dispensing, is in a range between 98.2% and 100% for the five scenarios. **CONCLUSIONS:** MRF is an effective intervention for optimizing prescribed medication and improving the quality of life of older people with polypharmacy in community pharmacies. The results from the cost-utility analysis suggest that MRF is cost-effective.

PIH44

RETROSPECTIVE ANALYSIS OF THE ECONOMIC BURDEN OF LONG-TERM CARE FACILITY RESIDENTS DIAGNOSED WITH ALZHEIMER'S DISEASE IN THE UNITED STATES

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OBJECTIVES: To evaluate health care resource utilization and costs of patients diagnosed with Alzheimer's disease (AD) and residing in long-term care facilities. **METHODS:** A retrospective database analysis was performed using the Minimum Data set (MDS) linked to 5% Medicare data from 01JAN2008 through 31DEC2011. AD patients were identified using International Classification of Disease, 9thRevision, Clinical Modification (ICD-9-CM) diagnosis code 331.0. The first diagnosis date was designated as the index date. A comparison cohort was created for patients without an AD diagnosis, using 1: 1 propensity score matching (PSM) to control for baseline characteristics (age, region, gender, index year, baseline Charlson Comorbidity Index [CCI] score). For the comparison cohort, the index date was randomly chosen to reduce selection bias. Patients in both cohorts were required to be age ≥65 years, with at least two consecutive quarterly assessments in MDS data in the 6 months pre-index date and 1-year continuous medical and pharmacy benefits enrollment pre- and post-index date. Study outcomes (health care costs and utilizations) were compared between the cohorts. **RESULTS:** After 1: 1 matching, a total of 2,158 patients were identified for the disease and comparison cohorts, and baseline characteristics were balanced. The AD cohort had a higher percentage of inpatient stays (33.73% vs. 24.93%, p<0.0001), outpatient visits (92.22% vs. 89.99%, p=0.01) and skilled nursing facility (SNF) (32.53% vs. 28.41%, p<0.01) and hospice admissions (11.03% vs. 7.14%, p<0.0001) than the comparison cohort. The AD cohort also incurred higher inpatient ($5,442 vs. $4,001, p<0.001), SNF ($5,679 vs. $4,523, p<0.01) and hospice stay costs ($3,164 vs. $2,047, p<0.001) as well as carrier claim ($2,907 vs. $2,686, p=0.03) and pharmacy costs ($5,043 vs. $4,722, p=0.01), compared to the comparison cohort. **CONCLUSIONS:** AD was associated with higher health care resource utilization and a significantly higher economic burden.

INDIVIDUAL'S HEALTH – Patient-Reported Outcomes & Patient Preference Studies

PIH45

VALIDATION OF THE ADHERENCE BARRIERS QUESTIONNAIRE (ABQ) – AN INSTRUMENT FOR IDENTIFYING POTENTIAL RISK FACTORS ASSOCIATED WITH MEDICATION-RELATED NON-ADHERENCE

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OBJECTIVES: Medication-related non-adherence is a major challenge in the real-life treatment of patients. To meet this challenge successfully, adherence interventions with a tailored approach towards patient-specific adherence barriers are needed. Therefore, a reliable and practicable questionnaire for identification of those adherence barriers in specific patients is needed. The aim of this investigation is to develop and validate such a questionnaire. **METHODS:** The "Adherence Barriers Questionnaire (ABQ)" was developed and tested in 432 patients with atrial fibrillation in a multicenter observational cohort study. Evaluation of the questionnaire included an assessment of internal consistency as well as factor analysis. Criterion-related external validity was appraised by comparing the ABQ score with the score of a self-report adherence measure and with a clinical parameter (time in therapeutic range (TTR) regarding INR values in the VKA-based stroke prophylaxis treatment of patients). **RESULTS:** The final 14-item ABQ scale demonstrated high internal consistency (Cronbach's alpha=0.820). Factor analysis identified a three-factor solution, representing intentional adherence barriers with 5 items (31.9% of the variance), medication- or health care system-related adherence barriers with 5 items (13.3% of the variance) and unintentional adherence barriers with 4 items (7.7% of the variance). The ABQ correlated significantly with self-reported non-adherence (Spearman's rho=0.438, P<0.001) as well as TTR (Spearman's rho=-0.161, P<0.01). Patients with above-average ABQ scores (increased number of existing adherence barriers) were significantly (p<0.005, Pearson Chi-Square) more likely to have a poor anticoagulation quality (TTR<60%) than patients with a lower ABQ score (44.6% versus 27.3%). **CONCLUSIONS:** The ABQ is a practicable, reliable and valid instrument for identifying specific barriers to medication-related adherence. Future research is required to examine the ability of the ABQ to identify patient perception/behavior changes over time which may be important for the measurement of success of adherence interventions.

PIH46

STRESS LOAD FACTORS IN THE SCOPE OF STUDENTS

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OBJECTIVES: The examination of the effects of stress in university students during the exam period, compared with demographic data. **METHODS:** Prospective research was made in the exam period. Altogether 181 university students participated in the study, in the course of which online questionnaire were applied. In the first part of the questionnaire demographic questions were listed, while Student Nursing Stress Index (SNSI) questionnaire was applied to measure stress level. Emotions perceived in a given moment could be evaluated by the Brunel Mood Scale. In the last part of the questionnaire Marlowe- Crowne Senior Short Form Social Desirability Scale (MCSDS) was applied to evaluate behaviour desired by the society. The analysis of results was performed with SPSS 20.00 and MO Excel 2007 programs. For data analysis descriptive statistics, χ^2-test, t-test, variance analysis and regression analysis besides the significance level p<0,05. **RESULTS:** The division of genders was 28 (15,47%) male and 153 (84,53%) female participants in the research (n=181). The average age was 21,62±3,07 years. The measurement of stress showed that sleeping time of students can be significantly affected by stress (p<0,001). Those whose parents are divorced reached higher points in the value of stress (p=0,038). Stress load caused by the exams did not show significant difference between specialities (p>0,05). In the course of the research we found that senior students experienced significantly more stress in the exam period than freshmen (p=0,013). **CONCLUSIONS:** As the result of the measurements it can be said that stress is continuously present in students. Besides the requirements of the university students have to cope with several other problems.

PIH47

FAILURE TO OBTAIN THE FIRST PRESCRIBED REFILL (EARLY MEDICATION NON-PERSISTENCE): A META-ANALYSIS OF RATES AND CAUSES OF VARIATION IN RATES BY CHRONIC DISEASE CLASS AND ANALYTIC METHODS

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OBJECTIVES: Medication non-adherence is often classified by the timing of non-adherence. Primary non-adherence is the failure to fill a newly-prescribed medication (Rx). Rx non-persistence is the failure to continue therapy after the initial fill. A recent classification – early non-persistence (ENP) – is the failure to obtain the first prescribed refill of a new Rx (single dispensation only). In this meta-analytic review, we compare the rates of ENP across studies by four moderator dimensions: (1) chronic disease class; (2) symptomatic vs. asymptomatic chronic condition; (3) length of the baseline treatment-free interval; and (4) whether ENP estimates were adjusted for Rx switches. **METHODS:** Fifty-eight studies that contained data on ENP were identified using a PubMed literature search and searches of each article's reference list. ENP rates were recorded for 91 distinct samples. ENP was defined as the failure to obtain the first prescribed refill within 30 days of the first-refill date. ENP rates were weighted by sample size and combined to provide pooled fixed effect size estimates for the moderator dimensions. **RESULTS:** Across all samples, the overall weighted ENP rate was 23.6%. Observed difference between ENP rates by disease class were largely explained by whether the treatment focused on symptom control or not: symptomatic ENP rate=39.5% vs. asymptomatic ENP rate=17.7%. ENP rates were affected by two aspects of methodology: (1) length of baseline treatment-free interval (shorter, favoring treatment-experienced=17.1% vs. longer, favoring treatment-naïve=27.2%); and (2) Rx switches accounted for in the ENP estimates (accounting for switch=18.8% vs. not accounting for switch=26.0%). **CONCLUSIONS:** ENP is as high, and can be higher than primary non-adherence. Most extant studies simply document the rate of ENP. Given that ~ 24% of patients are "one-and-done," it is imperative to: (1) understand the drivers of ENP and (2) develop patient-centered interventions to stem the epidemic of ENP.

PIH48

PATIENTS' ACCEPTANCE OF THEIR MEDICATION: RESULTS FROM A FRENCH MULTI-DISEASES STUDY WITH PATIENT ONLINE COMMUNITY USING THE ACCEPTANCE BY THE PATIENTS OF THEIR TREATMENT (ACCEPT©) QUESTIONNAIRE

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OBJECTIVES: Lack of adherence and persistence can be major barriers to treatment efficiency in real world, for many chronic diseases. Measuring patients' acceptance of their medication is thus gaining importance as it is likely to help better understand and predict patients' behavior towards treatment. The generic ACCEptance by the Patients of their Treatment (ACCEPT) questionnaire was developed to measure patients' acceptance of their medication. The objective of this study was to evaluate for a variety of diseases the level of acceptance in real life using a patient online community. **METHODS:** This study was observational, cross-sectional, conducted through the French Carenity platform. All patients connected were invited to complete an online questionnaire including demographics, chronic disease and treatment, and the 25 ACCEPT items. ACCEPT includes 6 multi-item acceptance dimensions (Medication Inconvenience, Long-term Treatment, Regimen Constraints, Side Effects, Effectiveness and General; range 0-100; higher score=greater acceptance) and one single-item acceptance dimension (Numerous Medications; range 1-3). Patients included in the analysis were suffering from any chronic diseases with at least 50 respondents and currently receiving a treatment for this disease. **RESULTS:** Responding patients had breast cancer (n=57), type 1 diabetes (n=101), type 2 diabetes (n=213), fibromyalgia (n=135), rheumatoid arthritis (n=98), multiple sclerosis (n=260), ankylosing spondylitis (n=134) or bipolar disorder (n=65). Most respondents were female (49% to 100%), with mean age 44 to 61. Mean (SD) ACCEPT General score was: 36 (33) for breast cancer, 64 (31) for type 1 diabetes, 54 (32) for type 2 diabetes, 35 (31) for fibromyalgia, 39 (31) for rheumatoid arthritis, 50